

Valley View Glades Natural Area

Ten-Year Area Management Plan FY 2015-2024



Lisa B. Allen

Forestry Division Chief

10-20-15

Date

Valley View Glades Natural Area Management Plan Approval Page

PLANNING TEAM

John Vogel, Wildlife Regional Supervisor

Denise Otto, Fisheries Management Biologist

Jason Villwock, Resource Forester

Mike Arduser, Natural History Biologist

Chris Boyd, Conservation Agent

Jennifer Porcelli, Private Land Conservationist

ST. LOUIS REGION

RCT Chair

Jennifer Lakes 9/21/15
Signature Date

FORESTRY DIVISION

Forestry Management Chief

John Tuttle 10/19/15
Signature Date

OVERVIEW

- **Official Area Name:** Valley View Glades Natural Area, # 8213
- **Year of Initial Acquisition:** 1982
- **Acreage:** 225 acres
- **County:** Jefferson
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage the high quality glade and woodland communities to preserve biodiversity while providing opportunities for diverse public use.
 - B. Desired Future Condition**

The desired future condition of Valley View Glades Natural Area (NA) is a healthy, diverse and sustainable mosaic of glade and woodland that maintains species diversity and provides opportunities for the public to study, hike and enjoy the area.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

- A. Priority Areas:** Valley View Glade Terrestrial Conservation Opportunity Area, Big River Fisheries Priority Watershed, Jefferson County Glades The Nature Conservancy Priority Area
- B. Natural Areas:** Valley View Glades NA is a representation of a dolomite glade natural community with adjacent dolomite woodlands that occurs in a large complex of dolomite glades starting near Morse Mill and extending east to Festus and then south to Ste. Genevieve County in a band about 2 to 5 miles wide. The glades develop on thin soils with bedrock outcrops formed from the Jefferson City-Cotter dolomite formation.

II. Important Natural Features and Resources

- A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
- B. Caves:** None
- C. Springs:** None

- D. Other:** Occurs in the Big River Dolomite Glade/Oak Woodland Low Hills Landtype Association. This landtype consists of low hills associated with the Jefferson City-Cotter Formation. Historically, glade/woodland complexes were interspersed with an oak woodland matrix (Nigh & Schroeder, 2002).

III. Existing Infrastructure

- 1 parking lot
- 2.5 mile Valley View Glades Trail (non-interpretive)

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** None
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** None
- D. Cultural Resources Findings:** No known cultural resources.
- E. Hazards and Hazardous Materials:** None observed.
- F. Endangered Species:** Endangered Species are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
- G. Boundary Issues:** None
- H. Other:** Follow all guidelines in the Missouri Natural Areas Procedures Manual (Missouri Department of Conservation, 2010).

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities:

- 1) Control early infestations of invasive plants currently found on the area (e.g., Japanese honeysuckle, sericea lespedeza and tall fescue), and the threat of future invasive plant infestations.
- 2) Use prescribed fire to reverse impacts of wildfire removal from natural communities. Impacts of wildfire removal may include:
 - Invasion of eastern red cedar and sugar maple in glades and woodlands;
 - Shift in tree species composition to shade tolerant, fire intolerant species in woodlands; and

- Decrease in diversity and abundance of ground layer herbaceous vegetation.
- 3) Enhance wildlife habitat and maintain biological diversity by maintaining open glades and woodlands with canopy gaps, allowing sunlight to reach the ground level herbaceous layer.
- 4) Monitor occurrence and relative abundance of as many species as possible on the area.

Management Objective 1: Maintain healthy glades with management emphasis on biological diversity.

Strategy 1: Monitor glades for invasive vegetation. Mechanically or chemically suppress any infestations to acceptable levels. (Forestry)

Strategy 2: Use prescribed fire to maintain glade openings and suppress invasions of eastern red cedar and sugar maple while stimulating herbaceous vegetation in glades. (Forestry)

Strategy 3: Mechanically or chemically remove any eastern red cedar and sugar maple that is not controlled by prescribed fire, but that would have been controlled historically by wildfire. (Forestry)

Management Objective 2: Maintain healthy woodlands with management emphasis on biological diversity.

Strategy 1: Monitor woodlands for invasive exotic vegetation. Mechanically or chemically suppress any infestations. (Forestry)

Strategy 2: Reduce tree stocking in woodlands to desired stocking levels and to desired hardwood tree species mixes using mechanical or chemical non-commercial thinning methods. (Forestry)

Strategy 3: Use prescribed fire in woodlands to stimulate herbaceous vegetation and increase oak regeneration. (Forestry)

Management Objective 3: Monitor biological diversity over time.

Strategy 1: Maintain list of all known species occurrences on the area with dates of documentation. This will be coordinated by the Natural History Biologist and will be conducted in partnership with The Native Plant Society, The Botanical Garden, Webster Groves Nature Study Society, Missouri Prairie Foundation, The Nature Conservancy and other interested groups. (Wildlife)

Strategy 2: Monitor the relative abundance of species of conservation concern on the area every five years. This will be coordinated by the Natural History Biologist. (Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

Maintain a healthy riparian corridor in the headwater streams of the Big River Watershed.

Management Objective 1: Maintain riparian corridors along streams.

Strategy 1: Monitor density of trees in drainages and ensure adequate stocking is maintained to minimize soil erosion. If stocking is inadequate, exclude fire from riparian corridors until seedlings are allowed to recruit into the overstory and become resistant to top kill by prescribed fire. (Forestry)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Deter illegal uses of the area, including the collection of flora and fauna, rock flipping, all-terrain vehicle use and trash dumping at the parking lot.
- 2) Offer valuable recreational opportunities such as nature viewing/study, hiking and hunting.
- 3) Regularly maintain the area for a variety of intensive public uses.
- 4) Build relationships with neighboring land owners and partners such as The Native Plant Society, The Missouri Botanical Garden, Webster Groves Nature Study Society, Missouri Prairie Foundation and The Nature Conservancy.

Management Objective 1: Deter illegal activities from the area.

Strategy 1: Post informative signage at the parking lot in accordance with area regulations to encourage users to report illegal activities such as poaching, soil disturbance and digging, and unauthorized collection of rocks, plants and wildlife. Post contact information to report violations. (Forestry)

Strategy 2: Perform regular area inspections and patrols. (Protection)

Strategy 3: Utilize open communication with Conservation Agents about activities on area and address issues as they are reported. (Forestry)

Management Objective 2: Provide public hunting and wildlife viewing opportunities.

Strategy 1: Maintain healthy habitat for a variety of plants and animals. (Forestry)

Strategy 2: Ensure that public hunting opportunities are advertised in the annual hunting regulation booklets, Missouri Conservation Atlas and Area brochure. (Forestry)

Management Objective 3: Maintain parking lot and maintain/enhance the trail system to provide aesthetics and high-quality hiking opportunities to the public.

Strategy 1: Perform routine maintenance on trails and parking lot. (Forestry)

Strategy 2: Perform routine trash pickup, painting and other maintenance activities. (Forestry)

Strategy 3: Work with Design and Development to explore methods to repair or replace parking lot surface. (Forestry)

Management Objective 4: Cultivate and maintain a good working relationship with neighboring land owners and natural resource partner groups.

Strategy 1: Work with neighbors to minimize boundary, trespass or any other issues affecting the natural area. (Forestry)

Strategy 2: Promote habitat management on neighboring landowner properties. This will be done by the Resource Forester and Private Land Conservationist in Jefferson County. (Private Lands)

Strategy 3: Foster communication with partner groups to maintain area species occurrence list. (Wildlife)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Keep area users informed with up-to-date information about the area.
- 2) Respond to the numerous requests received for research and collection of flora and fauna on this area.
- 3) Acquire larger tracts of land (100+ acres) that border the natural area and occur within the Valley View Glade Terrestrial Conservation Opportunity Area.

Management Objective 1: Ensure public information about the area is accurate and up-to-date.

Strategy 1: Perform annual review of Missouri Atlas data and Area brochures. (Forestry)

Management Objective 2: Regulate pressure from scientific research on the area.

Strategy 1: Maintain moratorium on research projects at discretion of Department Heritage Biologists and the Area Manager. (Wildlife)

Management Objective 3: Maintain well marked, accurate boundary lines and area signs.

Strategy 1: Paint boundary trees and maintain signs along boundary lines every four years, or as needed. (Forestry)

Strategy 2: Paint and maintain area signs. (Forestry)

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

| | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Terrestrial Resource Management | | | | | | | | | | |
| <i>Objective 3</i> | | | | | | | | | | |
| Strategy 2 | | | | X | | | | | X | |
| Administrative Considerations | | | | | | | | | | |
| <i>Objective 3</i> | | | | | | | | | | |
| Strategy 1 | | | | X | | | | X | | |

APPENDICES

Area Background:

Valley View Glades Natural Area is in central Jefferson County and was acquired in 1982. It was designated a natural area Aug. 24, 1982. The 225-acre area is a high quality representation of a large complex of dolomite glades starting just east of the Big River, near Morse Mill and extending eastward and beyond Hillsboro and Desoto, to Festus, then south into Ste. Genevieve County. This large complex of glades occurs in a band 2 to 5 miles wide. These glades are principally on Jefferson City-Cotter dolomite of Ordovician age.

The glades are commonly found on south and southwest-facing slopes with wooded ridges and are characterized by thin soil and bedrock at or near the surface. Water saturates the ground in winter and spring, but soils become droughty in summer and fall. These glades have been only lightly disturbed by human activity.

The plants and animals here are similar to what were here at the time of European settlement. The glades are dominated by little bluestem, Indian grass, big bluestem and prairie dropseed. Non-grass species, although not as dominant as the grasses, provide good wildlife food and add beautiful color to the glades during seasonal peaks of blooming.

The occurrence of both small intermittent streams and ephemeral streams, which drain the glades, adds diversity to the area. For such a small area, existing features such as stream ledges, waterfalls, overhangs and pools are remarkable.

Current Land and Water Types:

| Land/Water Type | Acres | Feet | % of Area |
|-----------------|------------|-------|------------|
| Woodland | 135 | | 60 |
| Dolomite Glade | 90 | | 40 |
| Total | 225 | | 100 |
| Stream Frontage | | 4,041 | |

Public Input Summary:

The draft Valley View Glades Natural Area Management Plan was available for a public comment period April 1–30, 2015. The Missouri Department of Conservation received comments from three respondents (Appendix A). The Valley View Glades Natural Area Planning Team carefully reviewed and considered these ideas as they finalized this document. A

brief summary of public input themes, including how they were incorporated or why they were not, can be found below. Rather than respond to each individual comment, comments are grouped into general themes and are addressed collectively.

Department responses to themes and issues identified through Valley View Glades Natural Area public comment period

Suggests increased enforcement of poachers. Suggests adding signs at the parking lot to deter poachers (e.g., “Reward for information leading to the arrest and conviction of poachers.”).

As mentioned in this plan, we will be adding signage at the parking lot to inform area users how to report tips on violations such as illegal collection or poaching on the area using the Operation Game Thief phone number. Per this number, it is possible to receive a reward for information that leads to an arrest.

Suggests extending hiking trail.

There are not any plans to extend the hiking trail on this area as the current trail system is of adequate length for the area and takes hikers through the different natural communities on the area and to scenic viewing locations. Off-trail hiking is allowed on this area for users who wish to see more of the area.

Suggests adding signage that identifies plants and animals and indicates where invasive species are being controlled.

We currently do not have plans to add signage that informs area users about plant and animal species occurring on the area, or indicates where we have controlled invasive species. While we always want to educate and inform visitors about this area, please keep in mind, this is a natural area and we try to limit the amount of signage seen along the trails. If you wish to learn more about the plants and animals that occur here you can look up information from our field guide at <http://mdc.mo.gov/discover-nature/field-guide> or purchase guides from one of our visitor centers or online at <https://www.mdcnatureshop.com/>. If you have specific questions about the area or the management that occurs here you can contact the area manager at Rockwoods Reservation Conservation Area at 636-458-2236.

Suggests acquiring additional land within the Valley View Glades Conservation Opportunity Area and more glade areas.

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

References:

Missouri Department of Conservation. (2010). *Missouri natural areas procedures manual version 1.0*.

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Jefferson City, Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Topographic Map

Figure 4: Current Vegetation Map

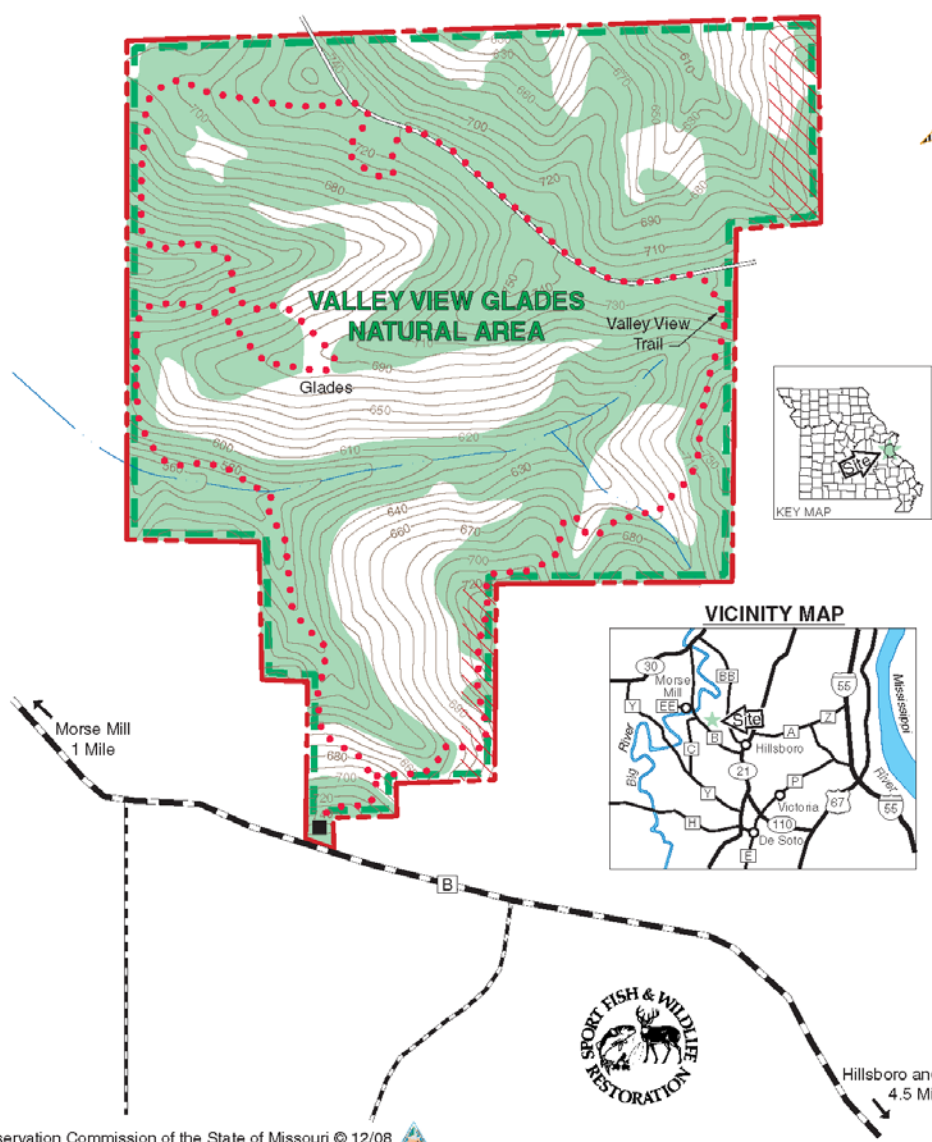
Additional Appendices:

Appendix A: Valley View Glades Natural Area Management Plan Public Comments

VALLEY VIEW GLADES NATURAL AREA

JEFFERSON COUNTY
225 ACRES

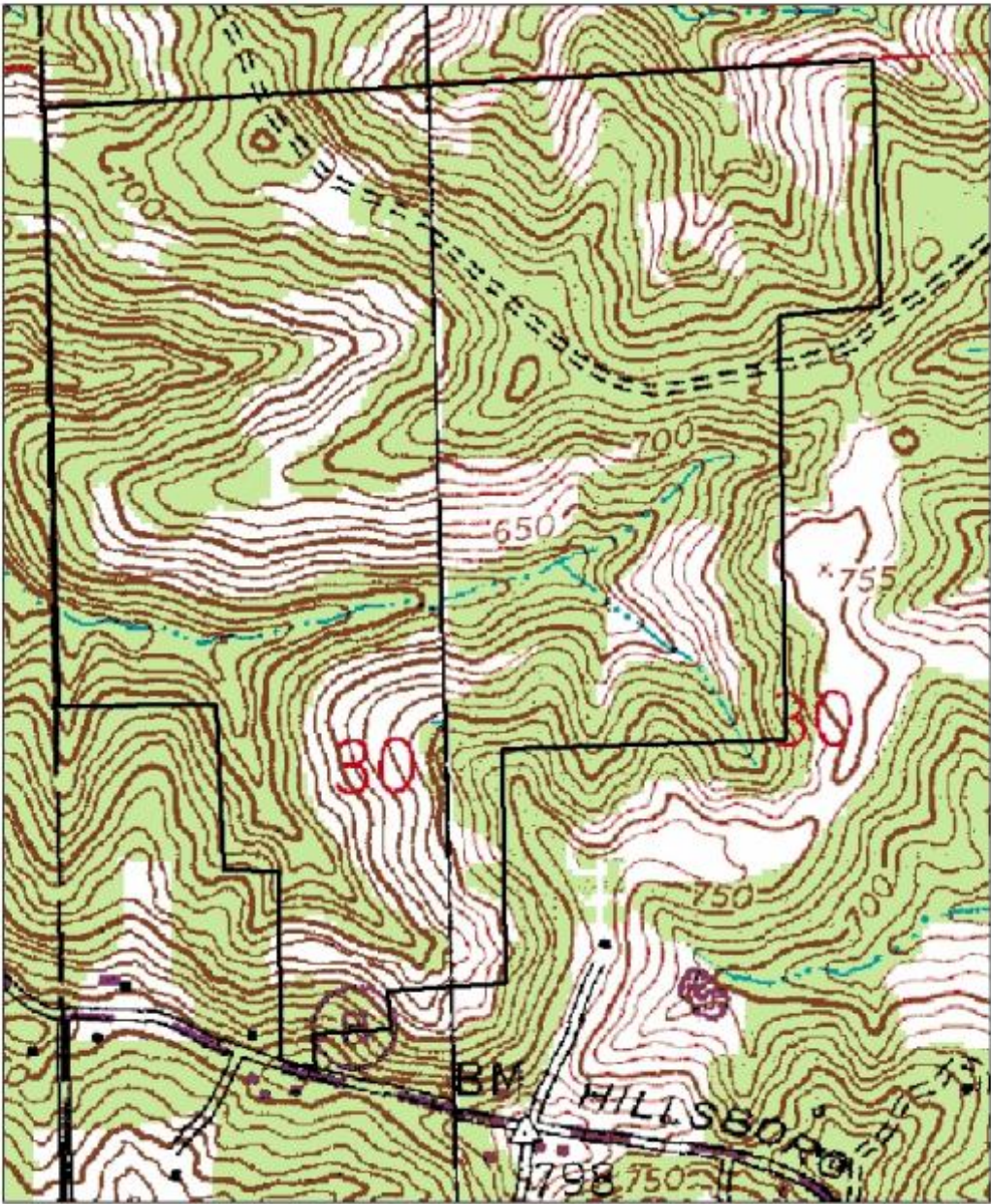
| LEGEND | |
|------------------|--|
| Boundary | |
| Paved Road | |
| Gravel Road | |
| Service Road | |
| Drainage | |
| Hiking Trail | |
| Parking lot | |
| No Shooting Zone | |
| Forest | |
| Topography | |
| Natural Area | |



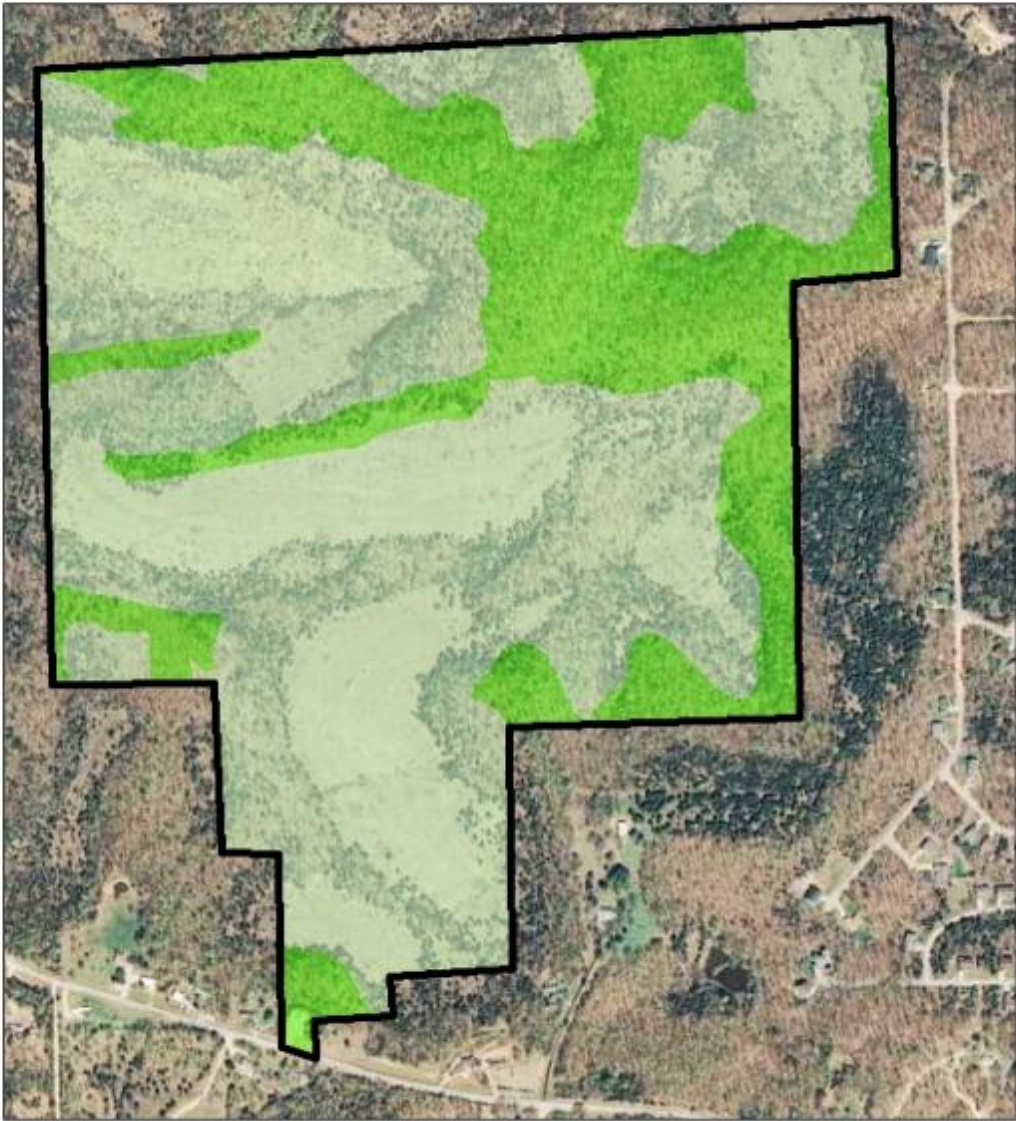
Valley View Glades NA



Valley View Glades NA



Valley View Glades NA



Legend

- Glade/Woodland Complex
- Upland Woodland
- MDC property boundary

0 0.045 0.09 0.18 0.27 0.36 Miles



Appendix A: Valley View Glades Natural Area Management Plan Public Comments

Received during public comment period (April 1-30, 2015):

Acquire larger tracts of land that border the natural area and occur within the Valley View Glade Terrestrial Conservation Opportunity Area. if possible this is a must. all conservation areas should be expanded whenever possible. Increase the length of the trail. Add signage to identify flora and fauna and to indicate the control of invasive and non glade plants.

Thank you for this opportunity to comment on the Valley View Glades 10-Year Management Plan. Valley View is an important biological resource greatly appreciated by local naturalists, and thank you to MDC for the land acquisition and ongoing maintenance.

There is an impressive amount of flora diversity at Valley View. My primary concern is the fauna. In all the times I've been there, I've never seen one lizard, snake, tarantula or scorpion, though I've heard they were originally quite numerous there, with populations in recent decline due to poaching. I understand some poach to sell on the pet market, some poach for private collections. It is very disturbing. Objective 1, Strategy 1 of the Management Plan indicates ongoing protection against poaching. I'd like to see that stepped up significantly for both Valley View and Victoria Glades.

I understand it is impossible to patrol Valley View and Victoria Glades every day. So please consider signs at the parking lots offering "reward for information leading to the arrest and conviction" of poachers. This might help. As is, without animal life, these beautiful and well-maintained glades seem a bit bereft.

Thank you again for this opportunity to comment,

I have been visiting Valley View Glades for many years during all seasons.

It is a good example of a glade.

Over the years we were happy to see the cedar trees come down. We were sad to see the holes on the glade where it looked like someone had dug up plants. We have seen the overturned rocks.

Generally I agree with your plan.

I would wish you all could expand the area or buy additional glades.

My husband joked you should write "this side up" on the rocks that get overturned.